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A TOUR OF THE *Carrizo Plain Natural Area*

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WELCOME

To the Public Lands in California

It is a pleasure to welcome you to the public lands in California under the jurisdiction of the Bureau of Land Management (BLM), and particularly to the Carrizo Plain.

Statewide, BLM is responsible for more than 17 million acres of lands as well as 47 million acres of subsurface minerals. BLM-California also has jurisdiction over another 1.5 million acres in northwestern Nevada.

Most people don't realize it, but almost half of California is Federally owned. National Forests account for 20.4 million acres; BLM public lands 17.1 million; National Parks 4.6 million acres; military lands 4 million; ana another 1 million acres managed by other Federal agencies.

This large percentage, combined with a rapidly growing population now reaching 29 million people, makes public land management a complex, highly visible operation. The challenge is to balance the tremendous need for resources with the State's strong public environmental ethic.

Today, you will be visiting an area where these conflicts are being positively resolved: the Carrizo Plain Natural Area. It clearly illustrates what can be done when all interests cooperate toward a balanced outcome.

I hope you enjoy the day and find the trip informative. I'm sure your visit will help you better understand the public land challenges facing BLM in California.

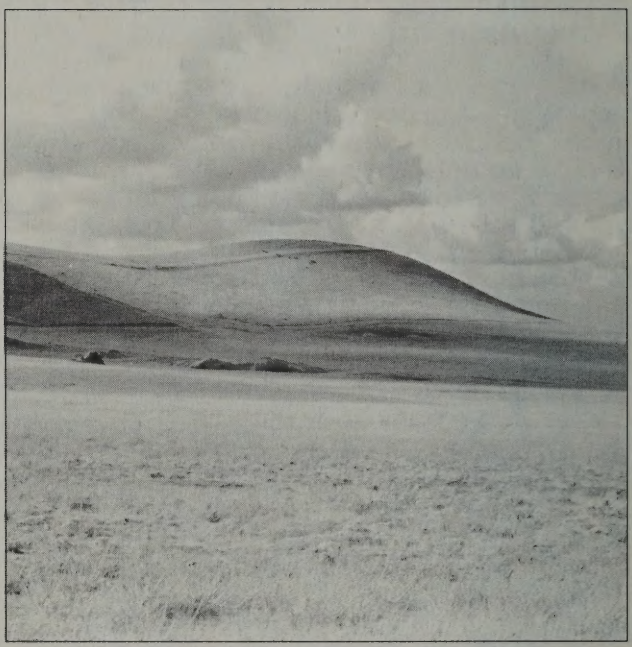
Sincerely,

Ed Hastey

THE CARRIZO PLAIN

The Carrizo Plain Natural Area is a perfect example of the kind of cooperative approach that holds great promise for resolutions of land use conflicts throughout The West.

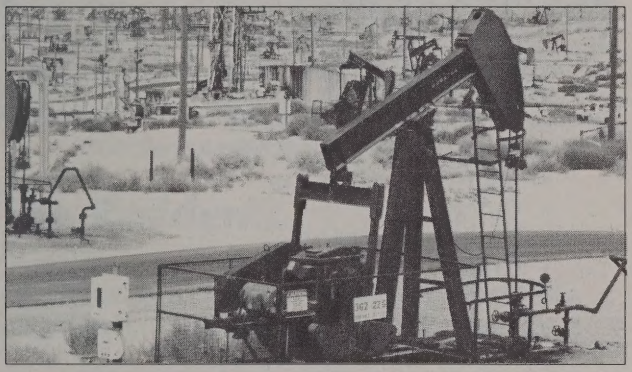
The Plain, a 180,000-acre expanse of private and public lands in eastern San Luis Obispo County, 60 miles west of Bakersfield, contains the last remnants of the once vast San Joaquin grasslands that covered a large expanse of Central California. These, combined with the area's critical wetlands and brushlands, are home to nine endangered or threatened wildlife species. Other significant wildlife populations and numerous sensitive plant species are also found in this ecosystem.



A cloudy day on the Plain

Just to the west lies one the country's most productive oilfields near Taft, as well as some of the State's most promising potential oil exploration areas in the San Joaquin Valley.

These two factors — sensitive resource values and high potential energy reserves — can often lead to the kind of "either/or" situation guaranteed to cause problems, and sometimes, legal standoffs, for land management agencies.



Drilling for oil in Kern County

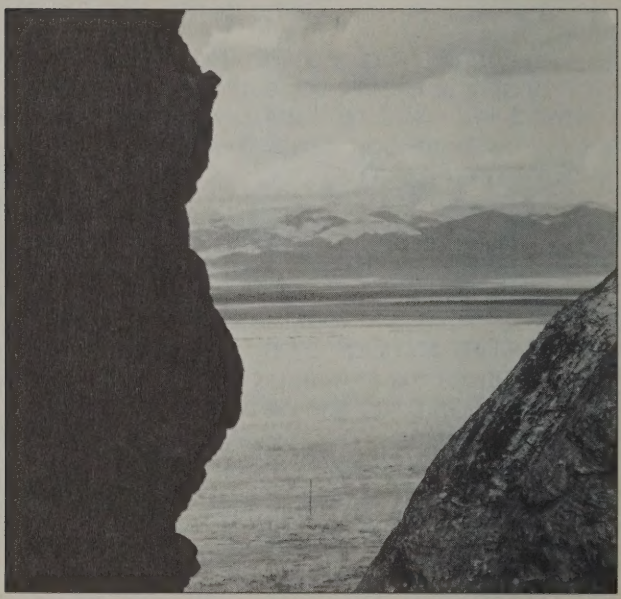
But the BLM, along with The Nature Conservancy and 16 other cooperators, including oil companies, wildlife groups, and State and local agencies, have come together to solve the problem in the Carrizo Plain.

The goal is to complete land exchanges and purchases so that all 180,000 acres will be publicly owned. The area will be managed by BLM in cooperation with the California Department of Fish and Game and The Nature Conservancy, under the principle of multiple use for the benefit of endangered species and their habitat, allowing other uses only when they are compatible with wildlife. The primary goal is to enhance the endangered species habitat to the point that the populations are stable and thriving enough to delist the species as endangered. Meanwhile, nearby oil reserves can be developed by offsetting impacts to endangered species habitat.

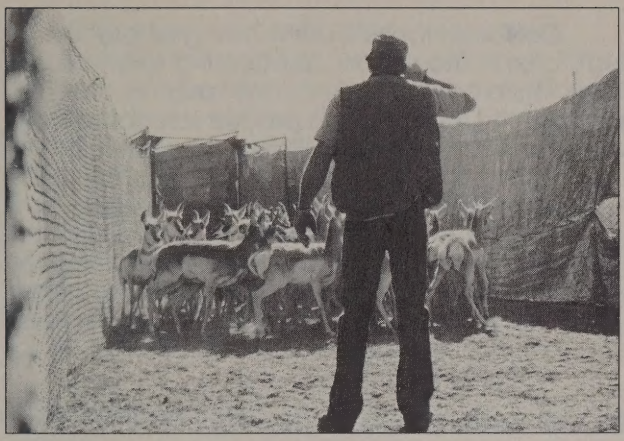
The Cooperators

Some 16 different entities are participating in the Carrizo Plain effort, led by Chairman Jerry Diefenderfer, a former San Luis Obispo County Supervisor:

- BLM
- The Nature Conservancy
- California Fish and Game
- Oppenheimer Industries
- Fish and Wildlife Service
- National Audubon Society
- University of California at Riverside
- Kern County
- San Luis Obispo County
- California Energy Commission
- Santa Fe Energy Co.
- Tenneco Oil
- Shell California
- Chevron USA
- Texaco Inc.
- Edward Lowe Industries, Inc.



A view af Carrizo Plain through Painted Rock



Pronghorn being reintroduced to Carrizo Plain

The Residents

Nine endangered or threatened species will benefit from the plan:

- San Joaquin kit fox
- San Joaquin antelope squirrel
- Giant kangaroo rat
- Short-nosed kangaroo rat
- Blunt-nosed leopard lizard
- Greater sandhill crane
- California condor
  (historically ranged here and there are long-term hopes for reintroduction)
- American peregrine falcon
  (has been sighted here)
- Bald eagle (has been sighted here)

In addition, 300 pronghorn antelope, which disappeared from the Plain in the early 1900's, were reintroduced to their historic range in the Plain over the last three years; tule elk have also been reintroduced in nearby areas.

Other wildlife species, including numerous raptors and lesser sandhill cranes, along with a number of rare plants, will also benefit from habitat protection.

Oil and Gas Production

California ranks fourth among oil producing states in the nation, accounting for more than 11 percent of the nation's total. In 1988, 71 percent of California's oil production came from counties within the BLM's Bakersfield District.

More than 19 million barrels of oil were produced from BLM-administered leases last year, generating $51 million in revenues. Half, or about $25 million, was paid directly to the State.

Elk Hills Naval Petroleum Reserve

Two of the four national petroleum reserves (NPRs) are located in this area between McKittrick and Taft: Elk Hills and Buena Vista.

The Elk Hills NPR #1 covers 48,000 acres. It was withdrawn in 1912 to stockpile Federal oil reserves for the U.S. Navy. Because of private lands, equity in the area was split between the Navy with an 80 percent share and Standard (Chevron) Oil with 20 percent. The Federal equity was later transferred to the Department of Energy. Oil production from the area was intermittently increased during the Arab embargo and has now leveled out to about 60,000 barrels a day. The Bechtel Corporation, under contract, operates the oil drilling operation and the oil produced is sold through competitive bidding. Half of the government's share of the revenues goes to the State of California.

The Buena Vista NPR #2, covering 15,000 acres of Federal and private lands, is a misnomer. It was never operated as a reserve and the Federal acreage has been actively leased to many separate companies over the years. Half of the Federal revenues go to the State. The field currently produces up to 10,000 barrels a day.

"Postage Stamp" Habitat Management

It is not unusual to find sensitive species coexisting in the midst of human activities. Kit fox dens can be found in old sumps or beside pipelines and well sites. Some kit fox have been known to use abandoned pipe as artificial dens. Other species such as blunt-nosed leopard lizards can occasionally be seen running across roads in developed oilfields. Such small pieces of undisturbed habitats known as "postage stamp" habitats and even habitat that has been slightly altered can still provide a home for an occasional sensitive species.

Giant Kangaroo Rat

This endangered species is found in the annual grasslands of southern San Joaquin Valley. Their burrow systems, called precincts, are scattered throughout the Carrizo Plain. Research efforts are currently geared toward determining the effects of grazing on this species. Giant kangaroo rats feed primarily on seeds during their night-time forays from their burrows. Habitat alterations by man have greatly reduced the amount of habitat available to the giant kangaroo rats.

Blunt-nosed Leopard Lizard

A large, day-time hunting lizard, this endangered species frequents dry, desert washes in the Carrizo area which are sparsely vegetated with annual grass and saltbush. These lizards often hide beneath shrubs and ambush insects as they pass by. The lizard is generally active above ground when temperatures are between 75 and 95 degrees Fahrenheit. Otherwise, they seek the shelter of burrows under the ground. Their habit of hunting during the day is dangerous to them where many roads cross through their habitat, exposing them to possible accidents with vehicles.

California Condor

The largest bird in the United States, this endangered species no longer exists in the wild. The Carrizo Plain Natural Area is an important part of long-term plans toward successful reintroduction of the species. Currently, elk and pronghorn are being relocated into this area. The addition of big game into the condor's traditional range will be an important factor in providing adequate food reserves for these large carrion eaters.

Raptors

With the fall rains, which carpet the Carrizo Plain with green grass and flowers, come an impressive number of hawks, falcons, eagles, and owls. These predators are escaping the rigors of winter farther north. Their arrival is timed to take advantage of the increase in prey available in the winter. Ducks and shorebirds are attracted to Soda Lake. Mammals, such as rabbits, mice, and kangaroo rats, time their breeding activities with this winter "green-up" and their numbers swell during winter and early spring. Agricultural and urban development have removed more than 90 percent of the habitat once available to migrating and wintering raptors. Natural areas like the Carrizo Plain are essential to conserving these birds.

Antelope Squirrel

This small squirrel is omnivorous, with a diet consisting primarily of grass and forb seeds and insects. Insects, especially grasshoppers, are eaten regularly when available. Antelope squirrels are active during the day when temperatures are between 68 and 86 degrees Fahrenheit. Burrows used by this animal are either dug by them or by giant kangaroo rats. The San Joaquin antelope squirrel is considered threatened by the State of California and is a candidate for listing as a threatened or endangered species by the Federal government.

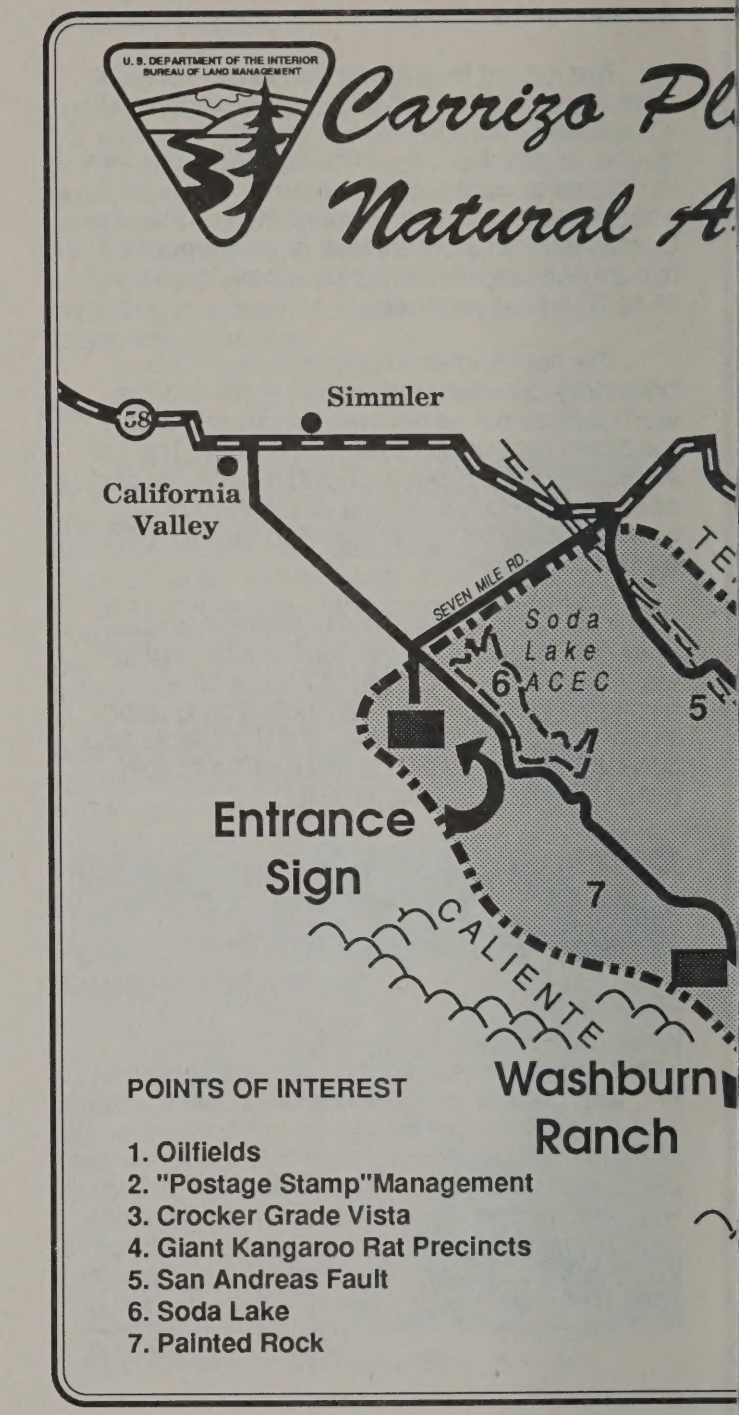
The San Andreas Fault

The recent tragedy in the Bay Area earthquake has again focused national and worldwide attention on the San Andreas Fault. The quake, registering 7.0 on the Richter scale with its epicenter northwest of here near Hollister, is now on record as one of the State's worst. The Carrizo Plain is also the result of movement on the San Andreas Fault, which came into being 15 to 20 million years ago.

The San Andreas Fault represents the boundary between the Pacific Plate (on the west) which moves northwestward relative to the North American Plate on the east. The San Andreas Fault is more than 800 miles long, and consists of a complex zone of crushed and broken rock from a few hundred feet to more than a mile wide.

Within the Carrizo Plain, geological features characteristic of the fault are exceptionally well displayed. The fault here is often depicted in textbooks and studied by geology students and professionals. The U.S. Geological Survey continues to study the fault to obtain data relating to seismic activity.

The San Andreas Fault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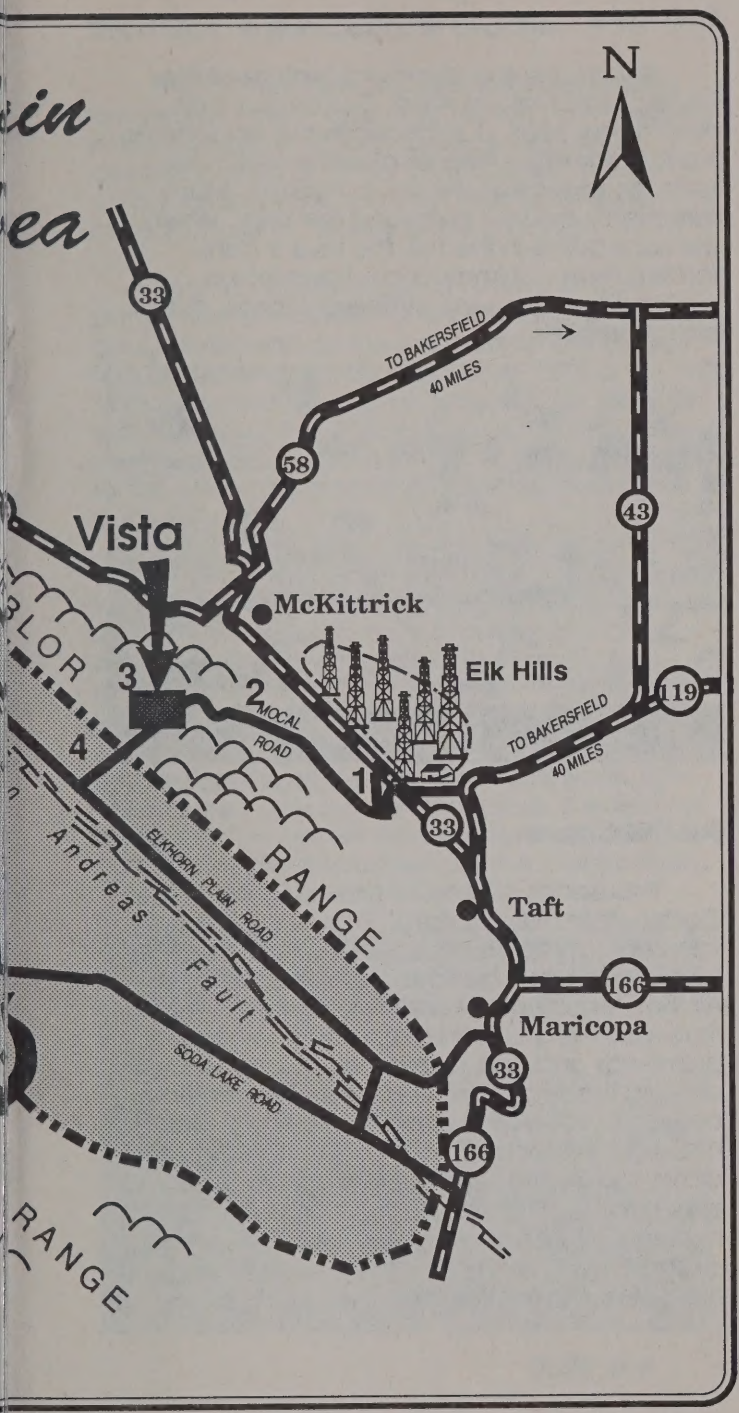
POINTS OF INTEREST
1. Oilfields
2. "Postage Stamp" Management
3. Crocker Grade Vista
4. Giant Kangaroo Rat Precincts
5. San Andreas Fault
6. Soda Lake
7. Painted Rock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McKittrick
Elk Hills
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MOCAL
ROAD
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TO BAKERSFIELD
40 MILES
33
RANGE
Taft
ELKHORN PLAIN ROAD
166
Maricopa
33
SODA LAKE ROAD
166
RANGE

Soda Lake

Soda Lake is a dominant feature of the Carrizo Plain Natural Area. Soda Lake is dry most of the year. Just beneath the dry surface is a considerable reserve of water which sustains the rare alkali sink scrub habitat. Many rare plants are found around the lake. When the rains come in the fall, the lake is transformed from a shimmering mirage into a wetland teeming with wintering cranes, ducks, and shorebirds.

Sandhill cranes at Soda Lake

Sandhill Cranes

Thousands of sandhill cranes winter in the Carrizo Plain Natural Area. From October until late February these birds, which stand three to four feet tall, can be seen around Soda Lake. All their requirements are met here: safe nighttime roosting at Soda Lake; ample food in the grainfields and annual grasslands; and fresh drinking water at several springs. The continued conversion of wetlands into agricultural lands or housing developments in the San Joaquin Valley makes the Carrizo Plain Natural Area important for this species' future survival. The nutrients and energy gained during the winter on the Carrizo Plain allow the cranes to migrate north in spring to breed on their nesting grounds.

Soda Lake Sodium Sulphate Deposits

The Carrizo Plain is a structural depression, an area of interior drainage, which has resulted in the formation of Soda Lake. Soda Lake covers an area of about 3,000 acres. In the 1880's the saline deposits at Soda Lake were mined for use at nearby cattle ranches.

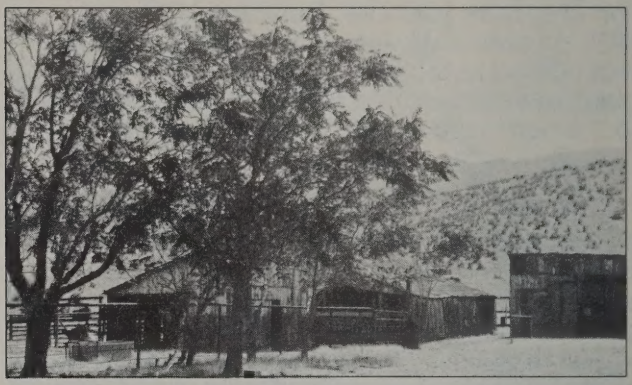
Prior to 1908, the Carisa Chemical Company invested $60,000 for a plant and a narrow-gauged railroad on the lakebed for the extraction of sodium sulphate. Between 1923 and 1925 an operation was active, and the product was hauled to McKittrick by truck. In 1934 the plant was moved from the south side of the lake to the north and a small amount of mineral produced.

In 1912, Hoyt Gale, with the U.S. Geological Survey, estimated that Soda Lake contained reserves of more than a million tons of sodium sulphate. The BLM has classified Soda Lake as prospectively valuable for sodium. However, sodium is already produced in large quantities at other locations, including Searles Lake in San Bernardino County. If any leasing at Soda Lake were to be considered in the future, it would be subject to the overall management objectives, primarily wildlife protection, for the Carrizo Plain.

Soda Lake

KCL Ranch

A public campground is planned for the Kern County Land (KCL) Ranch, part of 28,000 acres of Carrizo Plain acquired by BLM in 1989. The barn and corral will stay in order to serve equestrian campers, and the ranch water supply and septic system will be part of the campground public services. The trees provide some of the only shade to be found in the Carrizo.



The KCL Ranch

Caliente Mountain

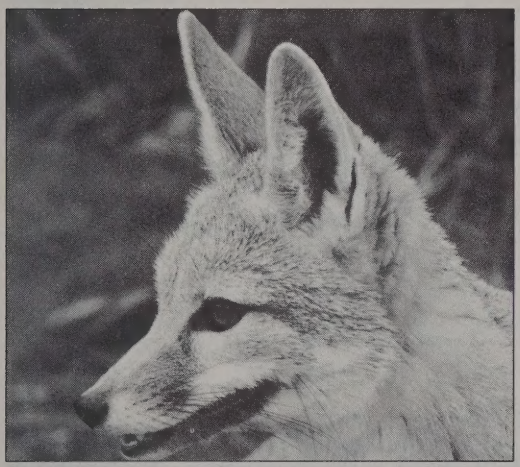
Caliente Mountain is the highest point in San Luis Obispo County and is a Wilderness Study Area. This large tract of public land for years had no public access, but that has changed with all the land BLM has acquired on the Carrizo Plain. The Selby parking area is available for primitive camping, and provides access to Caliente Mountain. From Selby, it is a two-mile uphill hike to the ridge parking area.

The road to the ridge parking area is open seasonally from April through November, and from there it is an easy seven-mile hike along the ridge to Caliente Mountain. The mountain is also accessible on foot from KCL Ranch, and from Highway 166 on the west side of the Caliente Range.

San Joaquin Kit Fox

This endangered species is the smallest fox in the United States but can manage to take prey as large as jackrabbits, which can equal their weight. The kit fox is found in annual grasslands and salt scrub throughout the Carrizo Plain Natural Area.

Like most desert animals, the kit fox is most active at night. Current research is being conducted on the basic requirements of this animal and the types and importance of its natural enemies. This species' inquisitive nature often brings it close to towns and other human developments. Unfortunately, this curiosity and the accidents caused by this contact is the leading cause of death for this animal.



A kit fox

Wildflowers

Spring wildflower displays can include Phacelia, goldfields, purple owls, clover, popcorn flower, wild parsnip, filaree, lupine and fiddleneck. Several rare plants, such as the California jewelflower, also contribute to a lavish wildflower display.

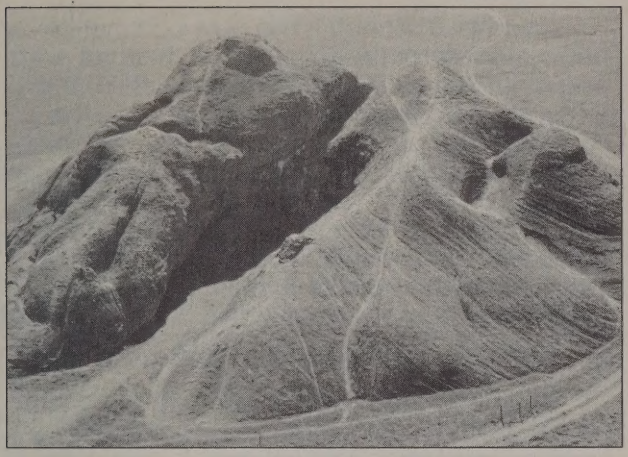
Revegetation and Grazing Management

The Carrizo Plain Natural Area is predominantly covered by annual Mediterranean grassland and valley scrub vegetation communities. Much of the total acreage has been manipulated extensively in the past for dryland farming and requires revegetation back to its native state. Revegetation efforts include research into native communities, species selection, experimental designs and planting practices, as well as seedling establishment monitoring.

The lands remaining in their native vegetative state within the natural area have been subjected to intense grazing pressures under past management. The new grazing management plan employs a short season of use in the spring from December 1 through April 15 and also a pasture rest rotation system. These management actions will help reduce the aggressive establishment of non-native annual grasses and promote the succession of shrub species and native bunch grasses by protecting them from grazing pressures when the annual grasses dry out and become less favorable to livestock.

The vegetative landscape at Carrizo

Painted Rock



Painted Rock

Painted Rock stands out in bold contrast to the Carrizo Plain as a natural landmark that rises 120 feet above the ground and contains some of the most impressive prehistoric rock art in all of North America. Geologically, the rock is a marine sandstone formed 20 to 25 million years ago during the Miocene Epoch. It is 250 feet long and 120 feet wide. Archeologists describe the rock art as polychrome pictographs because they are painted rather than being etched. These pictographs are done in a variety of colors, mostly red, black, white, and yellow.

Painted Rock appears to have been visited by several Indian tribes including the Chumash from the Pacific Coast and the Yokuts from the San Joaquin Valley. The rock art is estimated to be from 200 to 1,000 years old and used primarily by large gatherings for religious and spiritual purposes. Diverse styles and intricate detail were painted on these sandstone surfaces, making Painted Rock one of the most significant rock art sites in California, if not the world.

Washburn Ranch

Washburn Ranch is the BLM administrative headquarters for the Carrizo Plain Natural Area and is nestled between the Carrizo Plain and Caliente Mountain Range. Traditionally, the Washburn Ranch was a combination ranching and farming operation that encompassed more than 80,000 acres. The main settlement in the early 1900's was a cabin centered around a natural stone fireplace. Today, this same fireplace forms the core of a much larger 5,000 square foot home with four bedrooms and three bathrooms built around the 1930's.

Some of the features that give the Washburn Ranch a rustic ambience include the extensive woodwork, cast iron stove, and various historic ranching memorabilia. Associated buildings are the old cook house, bunkhouse, barns, and a recently relocated double-wide mobile home. The property was most recently owned by General Oppenheimer, a World War II hero, who founded Oppenheimer Industries, a multinational conglomerate. Many notables, ranging from movie stars to political figures, often accompanied the General on his visits to the ranch.

Washburn Ranch

INDEX

Antelope Squirrel 7
Blunt-nosed Leopard Lizard 6
Caliente Mountain 13
California Condor 7
Carrizo Plain 1
Elk Hills Naval Petroleum Reserve 5
Giant Kangaroo Rat 6
KCL Ranch 13
Kit Fox 14
Map 9/10
Oil and Gas Production 5
Painted Rock 16
"Postage Stamp" Management 5
Raptors 7
Revegetation and Grazing 15
San Andreas Fault 8
Sandhill Cranes 11
Soda Lake 11
Sodium Sulphate Deposits 12
Washburn Ranch 17
Wildflowers 14

Notes

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